

A NEW HOLLYHOCK APHID

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A maroon-red to reddish-brown aphid of the genus *Macrosiphum* has been observed to infest hollyhock, *Althaea rosea*, each season for a number of years, at Logan and elsewhere in Utah. Usually by late May the aphid had become so abundant as to be damaging. Some decrease in numbers ordinarily occurred during August; the aphid again became extremely abundant during early September and remained in damaging abundance until frosts had destroyed the foliage. Most of the individuals were observed to feed head downward, beneath the surface of leaves, on petioles, stems and beneath ovaries of flowers. They sometimes occurred from the apex of the plant to within an inch or two of the ground and were usually most abundant on the upper third. This species has been collected in injurious abundance by the writer, from Cedar City, in southern Utah, to as far north as Lethbridge, Alberta, Canada. When encountered, usually it has been present on at least some plants in conspicuous abundance.

The writer is indebted to Professors E. O. Essig and M. A. Palmer for their opinions concerning this pest, and to Merlin W. Allen who in correspondence called attention to its undescribed condition.

Macrosiphum eoessigi Knowlton, new species

General body color of living material, reddish-brown to maroon-red (occasionally a slight greenish or brighter red). Head, antennae except for small area at base of III, cornicles, cauda, anal plate, and most of legs beyond middle of tibiae black, or at least fuscous. Most dorsal abdominal hairs have a distinct blackish area surrounding the base; these sometimes tend to form a broken band across dorsum of segment preceding cauda. The dark areas become faded or lost when specimens are cleared too long in caustic. A dark area usually occurs behind each black cornicle. Cuticula of thorax and abdomen have tendency to be somewhat rugulose; minute spinose pattern often occurs along many of the ventral abdominal lines in apterous forms, especially noticeable in males. Ocular tubercles present; antennal tubercles prominent. Hairs on vertex moderately prominent and flattened at apex.

Stem mothers or fundatrices: Body 2.24 to 3.15 mm. long and 1.5

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to 1.62 across abdomen; antennae 3.32 to 4.19 mm. long; antennal III, .86 to .98 mm. long with 3 to 10 rounded sensoria of various sizes, mostly in irregular line on basal half of segment; IV, .65 to .9; V, .58 to .68; VI, .17 to .2 plus .97 to 1.11; rostral IV + V slenderly obtuse, .174 to .188, usually reaching abdomen; hind tibiae 1.98 to 2.48; hind tarsi .17 to .19; cornicles strong, .95 to 1.25 long with distal .26 to .32 mm. reticulated; total length of cauda, .54 to .57 long with 4 to 7 lateral hairs on each side, usually conical (rarely with slight constriction before base).

Alate: Winged females become abundant with maturity of the second generation, decreasing in number by mid-summer and scarce in fall. Spring alates have body 2.3 to 3.1 mm. long; antennae 3.66 to 4.26; antennal III, .83 to .91 with 8 to 19 sensoria; IV, .78 to .9; V, .65 to .74; VI, .17 to .19 plus 1.02 to 1.18; rostral IV + V, .18 to .19, usually reaches abdomen; hind tibiae 2.24 to 2.51; hind tarsi .18 to .19; cornicles black, .95 to 1.1 with distal .27 to .34 mm. reticulated; cauda .45 to .5 long with 4 to 8 lateral hairs, somewhat conical but not sharp at tip.

Aptera: Spring and summer aptera resemble fundatrices; body 3 to 3.25 mm. long; filament of antennal VI, .99 to 1.21; hind tibiae 2.33 to 2.81. Small fall sexuparae, which occur together with larger aptera, have body about 2.12 to 2.37 mm. long; antennae 2.78 to 3.12; antennal III, .64 to .68 with 1 to 5 sensoria; IV, .53 to .54; V, .47 to .49; VI, .14 plus .90; cornicles .72 to .85 with distal .17 to .2 reticulated; cauda .38 to .41 mm. long.

Males: Small apterous males occur during late September and October at Logan. Body 1.67 to 2.02; antennae 2.42 to 2.95; antennal III, .54 to .695 with 25 to 43 sensoria; IV, .49 to .6 with 13 to 25 sensoria; V, .43 to .57 with 9 to 15 secondary sensoria; VI, .1 to .14 plus .63 to .87 mm. long; rostral IV + V, .158, slenderly obtuse, reaching abdomen; hind tibiae 1.43 to 1.77; hind tarsi .14 to .16; cornicles .39 to .52 with distal .06 to .08 reticulated; cauda .19 to .252 mm. long.

Oviparae: Body 2.21 to 2.33 mm. long; antennae 2.56; antennal III, .68 to .77 with 1 to 8 sensoria; IV, .63 to .66; V, .52 to .56; VI, .15 to .17 plus .84; rostral IV + V, .16; hind tibiae, 1.78 to 1.91 with basal half somewhat swollen and armed with about 20 to 35 small rounded sensoria; hind tarsi .16 to .173; cornicles .73 to .82 with distal .11 to .22 reticulated; cauda .33 to .4 with 4 to 7 lateral hairs, usually without constriction before base.

Type: In the collection of the writer, the slide containing four alates, collected at LOGAN, UTAH, May 25, 1946, G. F. Knowlton. Paratypes in the collection of Utah Agricultural Experiment Station, Professors E. O. Essig and M. A. Palmer, Doctors C. F. Smith and A. N. Tissot, and in the U. S. National Museum. Approximately 175 slides were available for the above study, containing more than 1000 mature individuals.

Taxonomy: Alate *Macrosiphum eoessigi* n. sp. runs to *M. kiowanepus* (Hottes) in Gillette and Palmer's key (Ann. Ent. Soc. Amer. 27:169, 1934) from which it differs in body having more of a maroon-red color and lacking pruinose covering, in having larger body and shorter antennae and cornicles. The hind tibiae of the *eoessigi* oviparae contain fewer and smaller sensoria than other *Macrosiphum* species infesting plants of the Mallow family.

Collections: Described chiefly from material collected at Logan, Utah, throughout 1946 and in fall of 1945. Type locality, LOGAN, UTAH. Collections include: at Logan, Utah, October 16 and 17, 1945 (Knowlton), oviparae and males; September 9, 1945 (M. W. Allen—these in the E. O. Essig collection); May 1, 4, 6, 10, 12, 13, 15, 16, 25, July 14, August 30, September 4, 12, 15, 17, 18, October 22, November 8, 17, 1946 (Knowlton); May 24, 1946 (Knowlton and W. P. Nye). Collected elsewhere in Utah, during 1946 at: Farmington, May 16; Hyde Park, May 13 and October 22; Murray, June 28; Provo, July 16 and September 12; Aurora, July 5; Joseph, July 14; Cedar City, July 3 (Knowlton). Previous to 1945 specimens were taken at Salt Lake City, June 21, 1925, (Knowlton) and July 7, 1936 (C. F. Smith and P. T. Rigby); Ogden, July 31, 1935 (C. F. Smith); American Fork, June 29, 1936 (Knowlton), and Logan July 2, 1933 (Knowlton), in Utah. Collections also were made at Hollister, Idaho, July 27, 1936 (Knowlton); Franklin, Idaho, June 30, 1946 (Knowlton); Twin Falls, Idaho, July 20, 1946 (K. E. Evans); St. Marys, Montana, July 28, 1946 (Knowlton); Lethbridge, Alberta, Canada, July 26 and 27, 1946 (Knowlton); and Waterton National Park, Alberta, Canada, July 23, 1946 (Knowlton), all collected from common garden hollyhock.

Biological notes: Numerous reddish *M. eoessigi* nymphs were found on hollyhock at Logan during April of 1946. The first mature stem mothers appeared about May 1st. By May 6, numerous mature fundatrices and nymphs were present on apical growth and leaves. Parasitized individuals were found on the writer's back yard hollyhock plants, from May 10 until late October when frosts destroyed most of the leaves; some aphids survived until late November on leaves protected from freezing by snow and other cover. On May 10, a mature female *Nabis alternatus* Parsh. was observed feeding on a mature *M. eoessigi* female, which it killed. Two-spotted ladybird beetles also were

present on the same plant; this beetle later fed on an aphid. The first alate *eoessigi* were collected at Logan on May 13, 1946, and were fairly numerous for the next three weeks. At this time, 3 *Hippodamia convergens* Guerin were observed to feed on this aphid, one of them for approximately 12 minutes, while mating. On May 25, a mature *Anthocoris melanocerus* Reuter was observed at Logan, feeding on a nymph on the lower surface of a leaf. At Logan, Provo, Cedar City, and Lethbridge, *Deraeocoris brevis* Uhler were abundant on infested hollyhocks, where they fed on *eoessigi*. Other predatism was observed by syrphid larvae, adult and larval *Chrysopa*, and by other species of ladybird beetles and larvae. Such seemed sufficient to account for much of the seasonal reduction observed in these aphids during hot weather.

NATIVE HOSTS OF THE MEXICAN CHICKEN BUG,
HAEMATOSIPHON INODORA (DUGÉS)
(Hemiptera, Cimicidae)

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This rather common pest of poultry in the southwestern United States and Mexico has never been recorded from a native host. Since the bug is evidently native to this section of the Western Hemisphere and since the chicken is not, the source or native host of the bugs has long been a matter for speculation.

I am now able to record a fine series of this species from a nest cave of the California Condor, *Gymnogyps californianus* (Shaw) in Ventura County, California, Sept. 16, 1939, collected by A. H. Miller and C. B. Koford. Records are more numerous from the nests of owls as follows: Many nymphs and one adult male, Caliente Cr., 25 miles S. E. of Bakersfield, California, May 18, 1941, G. E. Bohart collector; Several specimens, Corona, California, in an abandoned tunnel formerly inhabited by owls, April 25, 1939, L. E. Wilson collector, sent by R. C. Dickson; Many specimens in two lots, Freedom, Oklahoma, alt. 3000 ft., October 31, 1940, Bubordorf and Howell, Great horned owl, *Bubo virginianus* (Gmelin).

Chickens might easily become infested from these birds of prey but the occurrence of related genera of Cimicids (e.g. *Hesperocimex*, *Cimexopsis* and *Synxenoderus*) on swifts and martins suggests that a passerine host may yet be found for *Haematosiphon* from which it may be picked up by birds of prey.